REMARKS

Upon entry of the instant amendment, claims 20-21 and 25-33 will remain pending in the present application.

In the instant amendment, claim 20 has been amended by incorporating the features of claims 23 and 24. Claim 33 also has been amended by incorporating the features of claim 24. Subsequently, claims 23 and 24 have been cancelled without prejudice or disclaimer of the subject matter contained therein. Thus, the instant amendment made herein to the claims does not incorporate new matter into the application as originally filed.

Accordingly, proper consideration of each of the pending claims is respectfully requested at present, as is entry of the present amendment.

Interview Summary

Applicant's representative hereby acknowledges with appreciation the telephone interview conducted with the Examiner on September 30, 2008. The Examiner's comments as set forth in the Interview Summary Form dated October 8, 2008 are correct with respect to the discussion that took place during the interview.

Rejection under 35 U.S.C. § 102(b)

In the Final Office Action dated June 18, 2008, claims 20-21 and 24-32 were rejected under 35 U.S.C. § 102(b) as being anticipated by the publication by Tamura *et al.* ("*Study on the anode behavior of Sn and Sn-Cu alloy thin film electrodes,*" *Journal of Power Sources*, Vol.

107, p. 48-55 (2002); (hereinafter "Tamura *et al.* (2002)"). Further, in the Advisory Action dated September 24, 2008, the rejection was maintained. Applicants respectfully traverse this rejection.

In the current amendment, independent claim 20 has been amended by incorporating the feature of claim 23. Thus, upon entry of the current amendment, the anticipation rejection has been overcome. Applicants respectfully request that the Examiner withdraw the rejection.

Rejection under 35 U.S.C. § 103(a)

In the Final Office Action dated June 18, 2008, claims 20-21, 23, 25-26 and 29-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Application No. 2003/0180619 (hereinafter referred to as "Tamura U.S. '619") in view of Tamura *et al.* (2002). Claim 33 was rejected under 35 U.S.C. § 103(a) as being unpatentable over International Publication No. WO 02/25757 (hereinafter referred to as "Tamura WO '757") in view of Tamura *et al.* (2002). Further, in the Advisory Action dated September 24, 2008, the rejections were maintained.

Applicants respectfully traverse and request that the Examiner withdraw the rejections based on the following explanations.

Distinctions over the Cited References

As recited in the currently amended independent claim 20, the claimed invention is directed to a non-aqueous secondary battery comprising:

a negative electrode comprising a collector, an intermetallic compound as an active material layer capable of occluding/desorbing lithium, and a conductive layer on the collector;

a positive electrode; and

a non-aqueous electrolyte, wherein

the intermetallic compound contains at least one kind of element A selected from Sn, In, Ge, Ga, Pb, Al, Sb, and Si, and an element X that does not substantially react with Li, and

the conductive layer is disposed between the active material layer and the collector, contains at least one kind of element selected from Ti, Ni, Zr, W and Ag, and has a thickness of 0.05 to 0.5 μm. (Emphases added)

In short, a non-aqueous secondary battery of the present invention has a negative electrode having a collector, an active material layer of an intermetallic compound and a conductive layer, **the conductive layer** being disposed **between the active material layer of an intermetallic compound and the collector**, containing of **Ti, Ni, Zr, W or Ag**, and having **a thickness of 0.05 to 0.5 μm**. Similarly, independent claim 33 also has such features.

First of all, none of the cited references disclose and suggest the specific conductive layer located at the specific place, containing the specific element and having the specific thickness and (i.e., the conductive layer of Ti, Ni, Zr, W or Ag with a thickness of 0.05 to 0.5 μm being disposed between the active material layer of an intermetallic compound and the collector).

Regarding the specific thickness (i.e., 0.05 to 0.5 μm), the Examiner cites Tamura *et al.* (2002), while alleging that it discloses the thickness of 0.05 to 0.5 μm. However, Tamura *et al.* (2002) fails to disclose or suggest the claimed conductive layer.

First, Tamura *et al.* (2002) fails to disclose or suggest the conductive layer of Ti, Ni, Zr, W or Ag between the active material layer of an intermetallic compound and the collector.

Second, Tamura *et al.* (2002) fails to disclose or suggest the conductive layer having a thickness of 0.05 to 0.5 μm between the active material layer of an intermetallic compound and the collector. In this regard, the Examiner alleges that Fig. 8 and the explanation thereof (and Fig. 6) at page 52 of Tamura *et al.* (2002) discloses that a conductive between an active material layer of an intermetallic compound and a collector has 0.05 to 0.5 μm.

However, in the Fig. 8 (a) (and Fig. 6(a)), there is **no** conductive layer between the active material layer of an intermetallic compound (Cu_6Sn_5) and the collector (Cu foil). (In other words, an intermetallic compound (Cu_6Sn_5) directly contacts the collector (Cu foil) in the Fig. 8 (a)) Further, Fig. 8(b) merely discloses that "Cu_3Sn-like layer" between Cu foil and Cu_6Sn_5 layer has 1-2 μm. Further, it is clear that in Fig. 6(b), the layer "3", which corresponds to "Cu_3Sn-like layer," has a thickness of 1-2 μm in view of the scale "2 μm" as shown in Fig. 6 (b).

Regarding Fig. 8 of Tamura *et al.* (2002), the explanation thereof states, as follows:

> *"Schematic modes of the microstructure of (a) the as-deposited and (b) the annealed anodes. The thickness of both Cu_6Sn_5 in the as-deposited anode and surface Sn on the annealed anode are < 0.5μm."* (Emphases added)

In short, in the explanation, it is Cu_6Sn_5 layer between Cu foil and Sn layer (not between an intermetallic compound layer and a collector) in Fig. 8 (a) that has a thickness of less than 0.5μm. Repeatedly, there is **no** conductive layer between an intermetallic compound layer (Cu_6Sn_5) and a collector (Cu foil) in Fig. 8 (a). Further, in Fig. 8 (b), it is surface Sn layer (not located between an intermetallic compound layer and a collector) that has a thickness of less than 0.5μm.

As explained above, Tamura *et al.* (2002) fails to disclose or suggest the claimed conductive layer because the reference fails to disclose or suggest i) the conductive layer of Ti, Ni, Zr, W or Ag disposed between the active material layer of an intermetallic compound and the collector, and further ii) a thickness of 0.05 to 0.5 μm of the conductive layer disposed between the active material layer of an intermetallic compound and the collector.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Since the Examiner interprets the Tamura *et al.* (2002) while ignoring the very clear and explicit disclosure regarding "1-2 μm" (not "< 0.5 μm") thickness of "Cu_6Sn_5-like" layer in Figs. 8(b) and the scale

of "2 μm." from which scale it is clear that "Cu_6Sn_5-like" layer has the thickness of more than 1 μm, in Fig. 6(b), such an interpretation is totally unacceptable.

As explained above, none of the cited references disclose or suggest the specific conductive layer containing the specific element, having the specific thickness and located at the specific place (i.e., the conductive layer of Ti, Ni, Zr, W or Ag with a thickness of 0.05 to 0.5 μm being disposed between the active material layer of an intermetallic compound and the collector). Therefore, a *prima facie* case of obviousness is not established even if the cited references are combined.

Likewise, it follows that a person having ordinary skill in the art would not be motivated by any of the teachings of the cited references and by the general knowledge to arrive at the present invention, again this is because no reason or rationale is found in the cited art that would allow one of ordinary skill in the art to arrive at the instant invention as claimed.

Accordingly, the present invention (i.e., independent claims 20 and 33, and dependent claims thereon) is not obvious over the cited references of record. Any contentions of the USPTO to the contrary must be reconsidered at present.

Based on the foregoing explanation, Applicants respectfully request that the USPTO withdraw the above outstanding obviousness rejections.

CONCLUSION

In view of the above remarks, it is submitted that instantly pending claims 20-21 and 25-33 are in condition for allowance at present. A Notice of Allowability is respectfully requested indicating that claims 20-21 and 25-33 are patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Toyohiko Konno (Reg. No. L0053) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By _____

John W. Bailey
Registration No.: 32,881
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant